



### Coordinators



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Syllabus	References
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#### COURSE OUTLINE

This course is useful for the determination of metals as ions in  $\mu\text{g}$ , ng, pg levels in aqueous and nonaqueous solutions. It has applicability to air pollution, water and solid waste matrices. A emphasis is laid on fundamentals of atomic structure, spectroscopy, instrumentation, method development and industrial applications. The course will be useful for chemists, chemical engineers, metallurgists, biotechnologists and NGOs.

#### COURSE DETAIL

Module Name	Lessons/Topics
Module 1	Introduction to pollution control monitoring and Introduction to atomic structure
Module 2	Interaction of electromagnetic radiation with fundamental particles
Module 3	Instrumentation, for flame, flameless and graphite furnace AAS
Module 4	Mechanism of Atomization
Module 5	Design of atomizers, flame, graphite, hydride generation and Instrumentation of AAS & AES electronics and optics
Module 6	Techniques of flame AAS, Interferences in flame and non flame AAS
Module 7	Interferences in Hydride generation AAS and cold vapor mercury, Applications of AAS to individual elements.
Module 8	Applications of AAS to individual elements continued, pollution monitoring and environmental sampling and conclusion

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